

Appl. No. 10/038,235  
Art Unit 3711 Docket No.: C01-02  
Reply to Office Action of 07/01/2003

### REMARKS

Claims 1, 5-18, and 21-29 appear in this application for the Examiner's review and consideration.

Claims 5 and 23 have been amended so as to be dependent on claims 1 and 18 respectively, rather than claims 4 and 20, which were previously cancelled.

Claims 1, 5-8, 16, 18, 24, and 28-29, have been amended to correct improper antecedent basis, and to better place the application in position for allowance.

#### **Rejection Over Galloway et al. U.S. Patent No. 6,354,962**

Claims 1, 5-18, and 21-29, were rejected under 35 U.S.C. § 103(a) as being obvious over Galloway et al. with the Examiner citing Official Notice in lieu of prior art.

The Examiner states on page 2, paragraph 1, of the Office Action, that Galloway et al. discloses "a hollow body 46 welded to an oval shaped titanium face plate or impact insert ". In addition, in the Response to Arguments section on page 4, the Examiner states "Galloway et al. clearly shows a face plate or insert having an oval shape". To the contrary, Galloway does not have an insert placed within his face plate (72). The face plate or striking plate (72), cited by Galloway in Column 5, is an integral portion of the cup-like face member (60) and should not to be confused with an insert, which is understood by one skilled in the art to be a separate piece that is inserted into the face plate.

Galloway's patent discloses a club head (42) composed of three sections, a face member (60), a crown (62) and a sole (64). Citing Galloway's column. 5, line 51 to column 6, line 4, "face member (60) is generally composed of a single piece of metal" and "generally includes a face plate (72), and a face extension (74) extending laterally inward from the perimeter of the face plate". Also Galloway recites "The face extension (74) generally includes an upper lateral extension(76), and a lower lateral extension (78)." These lateral extensions are welded horizontally to the crown and sole

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respectively. Thus, to use a face insert would require additional welding in the Galloway club. There is no motivation to significantly increase the manufacturing difficulty.

As stated in our previous response, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation to modify the reference or combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations.

Therefore, one skilled in the art would have understood that the insert of the present invention is clearly and unambiguously distinct from either the face member (60) or the face plate (72) of Galloway. Also, to one skilled in the art, it is clear and unambiguous that the face plate (72) of Galloway is not substantially oval. In Applicant's prior response to the Examiner's first Office Action, the importance of the insert being oval was recited at length.

The Applicant has claimed a metal wood golf club head having a face perimeter with an opening for receiving an oval shaped stamped metal impact insert. The inventive concept includes placement of the insert, which by design creates an extremely large "sweet spot", combined with the thin wall of the face perimeter forming part of the front face. The welding is therefore placed on a substantially vertical plane on the front face, and at least 0.20 inch from the transition junction, and not on horizontal planes at a distance into the crown and sole areas, as Galloway teaches. The transition junctions are where the face meets the crown and sole. Also, the amount of welding in the present invention is significantly less than in Galloway.

Thus, the Applicant maximizes the COR by welding the insert on the front face. Galloway, however, teaches completely away from this design. Galloway welds the lateral extensions of the face member (60), to the crown and sole. Thus, the weld line in Galloway extends across the crown of the club. This is distinctly, and specifically, away from the face.

In the manufacture of golf club heads, the club head has a generally fixed maximum weight. Much effort is taken by club manufacturers to remove weight from

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some areas of the club head and redistributing that weight to other areas of the club head, which may be deemed more desirable locations. An important aspect of the present invention is to be able to control exactly where the weight is placed. By welding immediately around the perimeter of the insert, which is in the middle portion of the face plate, the present invention requires less welding than if the welding had to encircle the entire body, as in Galloway. This savings in club head weight allows for weight to be redistributed to other more preferred areas of the club head. One skilled in the art, must view the construction of the Galloway club head as teaching away from the construction of the present invention.

The design of metal wood golf clubs is highly competitive, and innovative design improvements can often make or break the sales of any club. The Applicant's present invention is the basis of the King Cobra SS™ 350, 380 and 427 golf clubs, which are the hottest selling drivers in the market today, and earned Golfweek magazines' "Driver of the Year Award" for 2002. The major inventive concepts comprise welding the club head into an integral unit on a vertical plane, by welding the insert into the middle of the face plate. This allows the crown and sole transition junctions to be free of weld.

With respect to the weight element employed by the present invention, it is generally acknowledged that weight elements are added to a club head to address for moment of inertia and specific gravity issues. For the exceptionally large club heads used today, these issues are magnified. These bigger heads provide larger sweet spots, and subsequently are more forgiving and therein easier to hit clubs. But, there is a tendency for these big head clubs to promote a slice because of moment of inertial issues inherent in the make-up. A slice is the term given when the ball being struck by a right-handed golfer, excessively deviates from left to right. The Applicant has ascertained that by placing a weight element directly rearward from the point where the hosel centerline intersects the sole, the club compensates for the slicing tendency. No prior art teaches such a placement of the weight element, nor the results achieved by doing so.

The Examiner has taken Official Notice that since Galloway et al., along with Sun (US 5,219,408) and Masghati et al. (US 4,471,961) disclose placing weights at various

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locations to improve the center of gravity and moment of inertia of club heads, that the Applicant's placement of the weight element is well known. Masghati et al. does not anticipate any of the Applicant's concepts for solving a slicing problem, but rather teaches an axis that intersects at the center of gravity. Sun teaches the placement of weights in multiple ports in the sole of the club. Not one of these references discloses the concept of placing the center of gravity of the weight element directly rearward of the point where the centerline of the shaft intersects the sole. We stress that this is not rearward of the center of gravity of the club head. To take the claims of these references, as they teach placing weights at any location within the club head, and try to reach the teachings of the present invention, would require such random trial and error that it would certainly be seen as constituting undue experimentation.

Thus, the Examiner is clearly using the current application as the template for this teaching.

The rejections under 35 U.S.C. § 103(a) are believed to have been overcome for at least the above reasons. Applicant respectfully requests reconsideration and withdrawal thereof.

### Conclusion

Based on the remarks set forth above, Applicant believes that all of the rejections have been overcome and the claims of the subject application are in condition for allowance. Should the Examiner have any further concerns or believe that a discussion with the Applicant's agent would further the prosecution of this application, the Examiner is encouraged to call the agent at the number below.

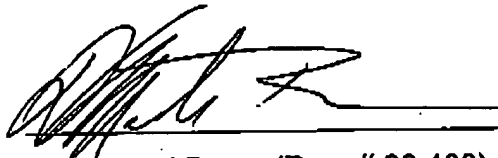
No fee is believed to be due for this submission. However, should a fee or any other required fees be due, please charge them to the Acushnet Company Deposit Account No. 502309.

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Respectfully submitted,

*September 26, 2003*

Date



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